



PATENT ABSTRACTS OF JAPAN

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BABA TETSUO****(54) THERMOPILE****(57) Abstract:**

PURPOSE: To make a heat sink part small in size and to improve precision in compensation of the temperature of a cold junction by providing an insulative base, a conductor circuit pattern, an organic film whereon a thermocouple pattern connected electrically to the conductor circuit pattern is formed, and an infrared-ray absorbing layer.

CONSTITUTION: Infrared rays from a body to be detected are transmitted through an infrared ray filter 8 and absorbed by an infrared-ray absorbing layer 6 and the temperature of the layer rises. The quantity of heat from the layer 6 is passed through an organic film 2 and transmitted to the part of a hot contact 32 positioned inside a hollow hole of a thermocouple pattern 3 and makes the temperature rise. A cold contact 31 positioned outside the hollow hole is kept at the temperature of an insulative base 1 and a temperature rise due to incidence of the infrared rays does not occur nearly at all. Accordingly, an output voltage of the pattern 3 based on the rise in the temperature of the hot contact 32 is generated at thermocouple output terminals 33 and 34. The output voltage, from the terminals 33 and 34 is inputted to an amplifier circuit formed on the base 1, and the output voltage subjected to temperature

compensation of the cold contact part 31 on the basis of a detected temperature from a temperature detecting element 71 is outputted to a lead terminal 9.

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